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A Wolf in Sheep's Clothing: Hypothyroidism Masquerading as Oedema Periorbitale' - A Case Report

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ABSTRACT: The symptoms of hypothyroidism can be subtle and develop gradually, making them easy to overlook. Many symptoms of hypothyroidism are also common in other conditions, complicating diagnosis. Hypothyroidism is a common endocrine disorder that can present with a variety of symptoms, including fatigue, weight gain, cold intolerance, constipation, dry skin, hair changes, menstrual irregularity, joint and muscle pain, slow heart rate, depression, hoarse voice, puffy face, slow speech, and rare symptoms such as muscle weakness, paraesthesia, pallor, and swelling in the legs (3)(2). We report a rare case of hypothyroidism presenting with peri orbital edema, paraesthesia, pallor, and positive Woltman's sign(4)—a 38-year-old female patient presented with progressive peri orbital swelling and delayed relaxation of deep tendon reflexes. Laboratory investigations revealed elevated thyroid-stimulating hormone (TSH) levels and low free thyroxine (FT4) levels, confirming the diagnosis of hypothyroidism. The patient's symptoms improved significantly with thyroid hormone replacement therapy. This case highlights the importance of considering hypothyroidism in the differential diagnosis of peri orbital edema and demonstrates the utility of Woltman's sign as a diagnostic clue.

KEYWORDS: Peri orbital edema, hypothyroidism, Woltman's sign

I. CASE

The patient is a 38-year-old female with a 2-month history of progressive symptoms like puffiness around the eyes and tingling around the head. Initially, she noticed puffiness around her eyes, which was worse in the morning and aggravated by work and cold temperatures. She found relief from this symptom when she took a rest.

Around the same time, she developed a persistent tingling sensation all over her head, which was not aggravated or relieved by any particular action.

Additionally, she complained of joint pains, which were persistent and involved multiple joints. She also reported neck pain and restriction of movement, which made it difficult for her to perform daily activities.

Over the past 2 months, her symptoms have been persistent and have not shown any significant improvement. She has not experienced any similar episodes in the past.

Characteristics of Symptoms:
- Puffiness around eyes: Worse in the morning, aggravated by work and cold temperatures, relieved by rest.
- Tingling sensation: Persistent, not relieved by any particular action.
- Joint pains: Persistent, multiple joints involved.
- Neck pain: Persistent, restriction of movement.

Aggravating and Relieving Factors:
- Aggravating factors: Work, cold temperatures.
- Relieving factors: Rest.

Associated Symptoms:
- Difficulty breathing
- Restriction of movement

GENERAL EXAMINATION
The patient is conscious coherent cooperative
Pallor present


No icterus, cyanosis, clubbing, lymphadenopathy, malnutrition, dehydration
Vitals: Temperature 98°; Pulse rate: 84 bpm; Respiratory rate: 22cpm
Blood pressure: 100/60mmHg;SpO2 98%

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Reflexes:

	RIGHT	LEFT
Biceps -	++	++
Triceps-	++	++
supinator-	+	+
knee -	++	++
ankle-	DELAYED	DELAYED

Menstrual history was abnormal menses for 4 months.

INITIAL INVESTIGATION:-
CBP: HB 11GM/DL
TOTAL COUNT 4,400 cells/cumm
NEUTROPHILS 26 %
LYMPHOCYTES 63 %
EOSINOPHILS 01 %
MONOCYTES 10 %
BASOPHILS 00 %
PCV 33.3 vol % M C V 82.5 fl
M C H 28.0 pg M C H C 34.0 % 31.5 - 34.5
RDWCV 14.3 % RDW-SD 44.7 RBC COUNT 4.03 millions/cumm PLATELET COUNT 2,80,000 lakhs/cu.mm
PEEIPHERALSMEAR:NORMOCYTIC NORMOCHROMIC
RBS: 108MG/DL
LFT, RFT: NORMAL RANGE

TSH LEVEL: 302.2 micro iu /l
T3 :0.34ng/ml
T4:0.51microg/l
USG neck: features suggestive of enlarged glandular tissue -goiter.
Management
The patient was treated with levothyroxine 125mcg, Supportive therapy

II. DISCUSSION:

Etiology of peri-orbital edema includes nephrotic syndrome, beri beri, anemia-induced high output cardiac failure, and also hypothyroid state which is usually reversible with accurate treatment.

Documented periorbital edema, pallor, with muscle weakness woltman sign is seen as a low thyroid hormone state which is usually reversible

Low thyroid hormone levels in hypothyroidism slow down the metabolic processes that control nerve and muscle function. This causes muscles to relax more slowly after contracting, which is most noticeable in the ankle reflex(1)(3)

III. CONCLUSION:

Thus periorbital edema, with Woltman's sign positive in this patient is probably due to primary hypothyroidism,which improved with treatment Thus proper clinical examination itself helps in diagnosing chronic disease and providing early treatment which helps in improving patient condition in the early stages itself

By this finding, we conclude that periorbitaledema cannot be ignored and to be further evaluated to rule out hypothyroidism along with other conditions

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